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https://doi.org/10.1108/EJM-02-2013-0083

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International market selection and export performance: A transaction cost analysis

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Abstract:

Purpose - Exporting firms are concerned with which foreign country to select and the performance consequences of this international market selection (IMS) decision. On the basis of transaction cost analysis (TCA), this paper proposes a conceptual framework that hypothesizes the relationship between transaction cost factors, IMS and export performance.

Design/methodology/approach - We test the proposed framework with a database of Chinese manufacturing firms using regression models and controlling for possible endogeneity. The endogeneity issue may arise due to IMS being influenced by unobserved industrial/firm attributes.

Findings – The results show that transaction cost factors are able to explain IMS. Furthermore, firms whose decisions have incorporated transaction cost factors perform significantly better than their rivals.

Research limitations/implications – Understanding transaction costs helps decision-makers formulate more efficient IMS strategy to achieve superior export performance. Future research on IMS may examine ‘passive exporting’, i.e. exporting initiated by overseas buyers, consider the role of institutional distance and use other approaches towards cultural distance-based IMS.

Originality/value – This study adds a new theoretical underpinning for IMS by developing a framework based on TCA, thus broadens the applications of TCA into IMS. Our empirical results support this extension.

Keywords: international market selection; transaction cost analysis; export performance; cultural distance; China

Classification: Research paper
International market selection and export performance: A transaction cost analysis

Introduction

For growth or survival, firms increasingly and actively search for overseas buyers and distributors (Gao et al., 2010). However, each export market has unique characteristics in economic, cultural and institutional frameworks that are different from a firm’s home market (Berry et al., 2010; Budeva and Mullen, 2014; Schneider et al., 2010). Given the multitude of diverse international markets that firms can potentially select, it is not easy to answer the fundamental and strategic question of international market selection (IMS) – “Which market?” (O’Farrell and Wood, 1994). Such strategic decision of IMS has profound performance implication to exporting organizations (Brouthers and Nakos, 2005; He and Wei, 2011). The extant literature, thus, has consistently stressed the importance of IMS and proposed alternative IMS models (Papadopoulos and Martín, 2011). However, there is no IMS study of exporting firms using transaction cost analysis (TCA) as the theoretical lens, albeit TCA’s popularity as a ‘new institutional economics’ paradigm in applied research across a wide range of economics, accounting, finance, business and management studies (see the overviews by Anderson and Gatignon, 1986; Hennart, 2010; John and Reve, 2010; Macher and Richman, 2008; Williamson and Ghani, 2010)

1 There is a tendency in the extant IMS studies to employ the term – IMS to reflect both initial market choice and further expansion in an existing market. For example, Papadopoulos and Martín (2011, p. 133-134) conceive IMS as a strategic decision “in which the objective is to select target market, whether for initial or further expansion”. Similarly, Andersen and Strandskov (1997, p. 67) define IMS as “the process of establishing criteria for selecting markets, investigating market potentials, classifying them according to the agreed criteria and selecting which markets should be addressed first and those suitable for later development”. Existing empirical studies also rarely clearly clarify whether IMS is about an initial market choice or further expansion in an existing market. To be clear, our research focuses on initial market choice.
Considering IMS as a rationally bounded decision that is performed as a firm’s choice from the available full set of international markets (Papadopoulos and Martín, 2011), TCA offers a systematic way of relating transaction attributes to the relative merits of alternative export markets. Different markets have different transaction cost implications for exporting firms (Moen et al., 2004). For example, firms tend to have different levels of knowledge on different markets and the potential business partners and customers there, which magnifies transaction costs in the exporting context (Meyer, 2001). The costs incurred in searching for and understanding the preferences of potential international business partners, and in negotiating, implementing and safeguarding export contracts vary due to cultural/psychic distance (Johanson and Vahlne, 2009). Following the TCA logic, managers need to consider transaction cost reduction in making IMS decisions (Shervani et al., 2007). Hence, in assessing the merits of alternative markets and “discriminating” one against another for location choice, it is essential to focus on the nature of the barriers inhibiting efficient business

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2 Prior TCA research in international business has largely focused on issues such as foreign entry modes, vertical integration, long-term contracting, sales force control and compensation issues, industrial purchasing strategy, distribution channel management, firm performance and survival, to name a few. Existing exporting studies using TCA have investigated such topics as entry mode choice (Khemakhem, 2010, European Journal of Marketing), control mechanisms (Sachdev and Bello, 2014, International Business Review), and the use of independent intermediaries (Madsen, Moen, and Hammersvik, 2012, International Business Review), but not IMS. Brouthers et al. (2009) incorporate transaction cost factors, i.e. the costs of making and enforcing contracts and the risk of dissipating proprietary knowledge, into their IMS study of multinational enterprise (MNE)’s foreign direct investment (FDI) decision. However, antecedents that are expected to influence a firm’s IMS decision on FDI operations may not lend themselves to being qualified as antecedents to IMS in an export-specific context setting. This is because FDI and exports are essentially two different types of foreign entry modes. As an equity mode, FDI is associated with firms transferring ownership advantages, such as technologies, to foreign markets and producing products in the foreign markets. But exporting is a non-equity mode. Exporters serve foreign markets with products made at home. According to Brouthers et al. (2009), transaction cost factors that are relevant to IMS in the FDI context concern the decision to transfer ownership advantages and to internalize market-based transactions. However, exporting does not involve the transfer of ownership advantages across national borders. Therefore, for example, one transaction cost variable considered in Brouthers et al. (2009), the risk of dissipating proprietary knowledge, is irrelevant in the exporting context. On the other hand, transaction costs associated with asset specificity are clearly important in the exporting context, but they are about serving foreign markets, not producing in a foreign market as is the case in the FDI context.
transactions (Klein et al., 1990). IMS per se may not be a transaction, but this decision entails a series of export transactions, which makes transaction cost reduction a key consideration when managers make the IMS decision. However, the rationality of managers is bounded to be circumscribed by their cognitive capabilities and information processing and communication ability (Williamson, 1985). IMS also involves export partners who may behave opportunistically, unscrupulously seeking to serve their self-interests under some circumstances, which creates safeguarding problems when asset specificity is present (Anderson and Gatignon, 1986; Klein et al., 1990). Thus TCA provides the theoretical means to determine the optimal strategy for IMS.

This study aims to fill the research void by explicitly examining the transaction cost factors in predicting exporting firm’s IMS decisions by combining both the systematic and non-systematic approaches to IMS (Andersen and Buvik, 2002; Papadopoulos and Martin, 2011). Past research suggests that firms following systematic approach recognize the complexity of assessing foreign markets and extensively evaluate a wide range of market and country conditions (e.g., Brouthers and Nakos, 2005; Cavusgil et al., 2004; Douglas, 2011; Erramilli, 1991; O’Farrell and Wood, 1994). Firms can also use cultural/psychic distance as a rule of thumb in making market choice decision by following the unsystematic approach (Andersen and Buvik, 2002; Dow, 2000; Ellis, 2007). In this paper, we attempt to link TCA (a systematic approach) to the cultural aspect of IMS (an unsystematic approach) and examine how exporting firms employ transaction cost factors to choose target markets
of different cultural distance from their home country on a logic of transaction cost reduction. We operationalize IMS by focusing on firm’s most important export market so as to ensure the acquisition of high quality information related to IMS which is treated as a conscious strategic choice, not those related to IMS by firms who exploit the incidental opportunities of the foreign markets and take one-off initiatives (Brouthers and Hennart, 2007). Following Brouthers et al. (2003), we also investigate the performance implication of the ‘transaction cost-enhanced’ model: do firms that follow TCA’s guidelines in IMS perform better than those that do not?

The paper contributes to export marketing management literature in two important ways. First, from a theoretical perspective, it marks the first attempt to apply TCA into IMS by linking the fundamental dimensions of TCA with exporting firm’s IMS. We thus heed both Williamson and Ghani (2012)’s poignant commentary that TCA is still a ‘work-in-progress’ and can benefit from further refinements and extensions, and Papadopoulos and Martín Martín’s (2011)’s call for more studies to examine the theoretical underpinnings and performance of IMS decisions and to develop frameworks that integrate specific theories relevant to IMS in the export context.

Second, from a managerial perspective, this study not only helps predict export target markets, but also provides normative implications for export performance. Understanding transaction costs and export performance helps decision-makers formulate more efficient strategies. Exporting firms may change their operational structures to handle the transaction costs for the benefits of superior performance.
We organize this paper as follows: First, we review the literature of TCA and cultural distance for the study of IMS, then develop hypotheses linking transaction cost factors with cultural distance-based IMS. The introduction of data and methodology follows. Results are presented before the discussion of the results and the exploration of the implications. The limitations and future research directions are also explained in the final section.

**Literature Review and Hypothesis Development**

Firms making IMS decisions usually follow systematic or unsystematic approaches (Andersen and Buvik, 2002; Papadopoulos and Denis, 1988). Systematic approaches see IMS as a rational response to, and a result of systematic research into market and country conditions (e.g., Brouthers and Nakos, 2005; Cavusgil et al., 2004; Brouthers, 2005; Douglas, 2011; Erramilli, 1991; O'Farrell and Wood, 1994). In other words, in order to find a country in which the firm can position itself competitively for exporting, the systematic approaches makes use of an extensive information search of objective market and country factors. Studies employing systematic approaches to IMS are generally theoretically sound and usually empirically based, offering normative guidance for managers. However, such approaches can become too complex to be applicable in practice (Papadopoulos et al., 2002).

In contrast, the unsystematic approaches are often prescriptive, narrating how managers undertake IMS (Andersen and Buvik, 2002). The commonly used unsystematic model reduces the complexity of assessing different markets through
extensive objective information search to IMS based on a key influential factor – cultural/psychic distance by following the Uppsala model (Johanson and Vahlne, 2009). Thus firms use cultural/psychic distance in guiding the IMS decision in the unsystematic approach (Andersen and Buvik, 2002; Dow, 2000; Ellis, 2007), and internationalize incrementally by first entering to culturally close countries to the home market, then culturally distant ones after they gain more experiences and resources.

In this paper, we attempt to link TCA (a systematic approach) with target markets of different cultural distance from the exporting firm’s home country (an unsystematic approach). In other words, we examine how exporting firms decide on cultural distance-based IMS from the perspective of TCA. Below we first briefly review TCA and discuss its relevance as a theoretical foundation for studying IMS. We then turn our attention to cultural distance-based IMS.

In the conceptual framework, we combine the two approaches of IMS and develop testable hypotheses relating transaction cost factors to a firm’s selection of a culturally close or culturally distant market for exporting. The choice of export market may have strategic consequences for the firm’s export performance. The inquiry therefore will also focus on whether firms whose IMS decisions are based on TCA framework perform better than those whose decisions are not TCA based.

**Transaction Cost Analysis**

TCA studies economic organizations through the lens of contract/governance (Williamson and Ghani, 2012). The focus of attention is to minimize transaction costs
through the design of efficient contracts or governance mechanisms for supporting economic transactions. Transaction costs are the costs of governing the system, which include ex ante (e.g., drafting and negotiating agreements) and ex post (e.g., monitoring and enforcing agreements) costs. TCA asserts that the appropriateness of the system rests on the interplay of the assumptions of human behavior (bounded rationality and opportunism) and the aspects of transactions (asset specificity, uncertainty and transaction frequency).

Bounded rationality recognizes that decision makers have constraints on their cognitive capabilities and limits on their rationality. Thus their behavior is “intendedly rational, but only limited so” (Williamson, 1999, p.1089) because of their limited information processing and communication ability. Under the assumption of bounded rationality, transaction costs increase with uncertainty, i.e. when the environment of a transaction cannot be specified ex ante and performance cannot be readily verified ex post. Thus, it is difficult or impossible for business partners to draft and negotiate a fully contingent contract and for the third-party (e.g., a court) to reasonably enforce the contract (Macher and Richman, 2008).

Opportunism refers to decision makers’ intention of seeking to serve their self-interests given the opportunity (Williamson, 1985, p.47). Under the assumption of opportunism, the existence of specific assets in the exchange relationship (asset specificity) can result in a safeguarding problem, because market competition cannot serve as a restraint on opportunism. Given the bounded rationality, it is also very costly to uncover opportunism. Contracts have to be laden with safeguards that are
designed to protect each party from the opportunistic behavior of the other, and such safeguards are also costly.

Under the assumptions of bounded rationality and opportunism, three dimensions of transactions influence transaction costs: asset specificity, uncertainty and transaction frequency. Asset specificity is defined as “durable investments that are undertaken in support of particular transactions” (Williamson, 1985, p.55). In the context of exporting, high asset specificity reflects the fact that specialized investments are needed to support an exchange in a foreign market. Exporters therefore have to be conscious of the potential capital losses if they are to redeploy the assets (Tesfom et al., 2004).

Uncertainty includes both external uncertainty and behavioral uncertainty. External uncertainty reflects the changes in the external environment of the firm that cannot be predicted or controlled (Klein et al., 1990). External uncertainty poses the issue of adaptation, as it enhances negative information asymmetries and increases the potentiality for external intermediaries to behave opportunistically (Klein et al., 1990). Behavioral uncertainty refers to the difficulties associated with monitoring the contractual performance of exchange partners (Rindfleisch and Heide, 1997).

The final dimension in the TCA framework is transaction frequency that relates to the frequency with which transactions recur (Williamson and Ghani, 2012). Given the same level of asset specificity, frequent transactions could be associated with frequent consequential disturbances, hence high transaction costs. However, there is a bias
towards opportunism over cooperation in TCA [Tesfom et al., 2004]. Frequent dyadic market transactions could enable the development of relationship between business partners, which allows for trust building and fosters cooperative relationship, thus reduces the risk of opportunism and lowers transaction costs.

TCA can be employed as a theoretical foundation for the study of IMS. IMS is a rationally bounded decision that is performed as a firm choice from the available full set of international markets [Papadopoulos and Martín, 2011]. When making IMS decision, managers face a multitude of diverse international markets. They have bounded rationality due to their constrained cognitive capabilities and information processing and communication ability. IMS also involves opportunistic export partners seeking to serve their self-interests, which leads to safeguarding problems in the presence of asset specificity [Anderson and Gatignon, 1986; Klein et al., 1990]. IMS decision entails a series of export transactions, which marks the significance of transaction cost reduction in manager’s decision-making process. Thus TCA is relevant for IMS, and could provide the theoretical base for determining the optimal strategy for IMS.

**Cultural Distance-Based IMS**

Cultural distance has been one of the most widely cited factors in the study of exporting firms’ IMS [Brewer, 2001; Dow, 2000; Erramilli, 1991]. The central proposition of these studies is that firms target culturally close markets first because the smaller cultural distance between home and target markets implies the lower level of uncertainties and costs of doing business between the two countries. As firms gain
knowledge and experience of international markets, they move on to culturally distant markets. Despite the strong heritage and good face validity of this stages model, the literature is filled with empirical irregularities that do not match the model’s prediction (Brewer, 2001; Dow, 2000; Dunning, 2001). However, this does not necessarily mean cultural distance is no longer relevant for IMS. We suggest that the model can be improved by incorporating transaction cost factors. We differentiate international markets by cultural distance between the target market and the home country market of the firm and examine how firms make IMS decisions based on transaction cost factors.

Cultural distance has been examined in an IMS context in the market orientation (MO) literature. For example, He and Wei (2011) show that market-oriented firms tend to choose culturally distant markets that help them exploit MO advantages with the mechanism of decreasing transaction costs in exporting. Furthermore, the match of MO and market of varying cultural distance significantly impacts on firm’s export performance. Though the research recognizes that firms with MO advantages select a culturally distant international market to lower the transaction costs and take advantage of foreign market opportunities, it does not explicitly focus on transaction cost factors. In contrast, this study approaches IMS from the perspective of TCA. We explicitly link transaction cost factors with export target markets that vary in cultural distance and ascertain the impact of “transaction-cost enhanced model of IMS” on export performance.

3 Market orientation (MO) refers to the organization-wide efforts in generating and disseminating market intelligence and the capability to respond to it (Morgan et al., 2004).
Hypothesis Development

Our conceptual framework is illustrated in Figure 1. We develop hypotheses of the relationships between three dimensions of TCA (i.e., asset specificity, uncertainty, and frequency) and cultural distance-based IMS, which is then linked to export performance.

(Insert Figure 1 here)

Asset Specificity and IMS

Asset specificity is related to the magnitude and transferability of the assets that support economic transactions. Specialized assets (as opposed to generic assets) include human and physical assets, dedicated assets and site specificity, all of which are dedicated to a particular exchange, thus the opportunity costs for their redeployment to an alternative arrangement are high. Idiosyncratic investments have to be made deliberately and consciously because of the productive nature of these specific assets. Thus transaction-specific investments give firms a source of competitive advantage and help them outperform rivals that deploy less productive generic assets. However, these investments, at the same time, involve sunk costs in the case of contract termination or sometimes contract modification, as there is little or no significant salvage value outside the focal relationship. Therefore asset specificity could cause a safeguarding problem and the risk of opportunistic exploitation.

In the export context setting, one example can be that an exporter may have to
make certain modifications to meet its overseas partner’s specifications given the unique characteristics of the target market consumers. These investments in specialized assets dedicated to exchanges in a particular foreign market involve serious resource commitment and may create both a source of competitive advantage and a barrier to the exit of the relationship, as the transaction-specific investments may have no alternative usage outside that export exchange. Such investments have the effect of reducing a large-numbers bargaining situation to a small-numbers situation. Thus the level of asset specificity represents the potentiality of market failure and high transaction costs under the assumption of opportunism (Brouthers and Hennart, 2007).

Under the condition of high asset specificity, exporting firms may expand into target markets that are culturally close to their home country in order to manage transaction costs and combat opportunism. As argued above, asset specificity can potentially “lock” an exporting firm to a relationship, as switching exacerbates costs. Cultural distance reflects the degree to which exporters may be uncertain about the foreign market (O’Grady and Lane, 1996). Cultural distance between the exporter’s home and target country causes information asymmetry because of difficulties relating to searching markets and business information and directly communicating with business partners (Dow, 2000). This may lead to opportunistic behavior of some foreign business partners because information asymmetry may give them an exploitable advantage in their dealing with the exporting firm, e.g. distorting or concealing information. Therefore they have a tendency to be opportunistic (e.g. to
cheat) given the chance. However, it is more difficult to sort out business partners who are opportunistic from those who are not in culturally distant markets than in culturally close markets. As a result, expecting variance in the opportunistic behavior, exporting firms face higher costs of selecting and monitoring foreign business partners and enforcing contractual agreements in culturally distant markets than in culturally close markets (Anderson and Gatignon, 1986).

In order to successfully utilize specialized assets in a foreign market, exporters must understand local values and adapt to local business norms, such as established business practices, and invest a significant level of resources in their understanding of the market and relationships with foreign business partners in order to facilitate and improve the exporting process. However, cultural distance hinders the effectiveness of specialized assets and increases the likelihood of failure of such assets. To reduce and diversify risk, exporting firms may prefer culturally close markets to culturally distant markets.

Thus, asset specificity and the associated potential opportunism increases transaction costs and a firm may prefer culturally close markets to culturally distant markets in order to reduce transaction costs. Therefore, we have:

**H1: The higher the level of asset specificity, the more likely it is for exporting firms to target a culturally close market.**

**Uncertainty and IMS**

Uncertainty captures the degree to which costs, including ex ante contractual costs and ex post monitoring and enforcing costs, are augmented by external
uncertainty and behavioral uncertainty. Uncertainty could lead to market failure and elevates transaction costs. Uncertainty reduction is a prime factor in IMS decision making (Erramilli, 1991).

External uncertainty poses the adaptation problem (Klein et al., 1990). Bounded rationality precludes the contracts to specify all possible contingencies. When unforeseen contingencies arise, contracts are strained in adapting to the changed settings because parties involved in export transactions can be (potentially) opportunistic and interpret unspecified clauses to their own advantages. External uncertainty equally limits the contractual solutions to asset specificity (Anderson and Gatignon, 1986). External uncertainty also enhances information asymmetry (Klein et al., 1990). Given external uncertainty, transaction partners in exporting may be inspired to distort information, shirk responsibility and/or break promises, thus increases the potentiality for them to behave opportunistically.

External uncertainty is associated with cultural distance between the home and the target country of the exporting firms. External uncertainty in culturally distant markets is higher than in culturally close markets because of the differences in language, culture and political system which create barriers for the flow of information between exporting firms and their markets (Johanson and Vahlne, 2009). While information is important for firms to minimize external uncertainty when deciding which market to target (Erramilli, 1991; Malhotra and Papadopoulos, 2007). Furthermore, cultural differences can lead to generally high cost of gathering market intelligence about customers and competitors (Brouthers and Hennart, 2007). The
distance also results in communication and misinterpretation problems between the exporting firm and its foreign business customers and customers, again hindering the firm’s access to target market intelligence (Dow, 2000).

Faced with a high level of external uncertainty, the firm may tend to enter markets that are culturally close to reduce transaction costs. On the other hand, information flow is relatively less impeded in culturally close country markets (Brewer, 2001), which compensates the firm’s external uncertainty. Thus we have:

**H2: The higher the level of external uncertainty, the more likely it is for exporting firms to target a culturally close market.**

Behavioral uncertainty, which also refers to performance ambiguity or internal uncertainty, requires the exporters to deal with the evaluation problem in connection with determining whether contracts are complied with (Heide, 1994). The solution to such issues is often to decrease the partner’s incentive to pursue their self-interest in an opportunistic manner (Brouthers and Hennart, 2007), which is easier to be carried out if firms operate in culturally closed markets (Zhao et al., 2004). With similar cultures, there is familiarity in terms of language, culture and business practices that can enhance information flow and makes it easier for exporting firms to develop incentives for goal congruence and loyalty (O'Farrell and Wood, 1994). Firms are also likely to find it easier to impose subjective judgment and to monitor behavior in a culturally close market than in a culturally distant market.

Moreover, the necessity of adapting product offerings and relevant marketing activities to export markets tends to be less in markets with close cultures than in
those with distant cultures. On the other hand, targeting culturally distant markets may isolate the firm from clearly understanding and monitoring its business partner’s behavior and performance, which may result in firms deploying costly safeguards, e.g. the writing of detailed contracts, that in turn increases costs and reduces efficiency.

Thus we have:

**H3: The high the level of behavioral uncertainty, the more likely it is for exporting firms to target a culturally close market.**

**Transaction Frequency and IMS**

The third transactional dimension is transaction frequency, defined by Williamson and Ghani (2012) as the number of times a transaction recurs. Often it refers to the distinction between one-time and recurrent exchange (Klein et al., 1990). We posit here that transaction frequency should be regarded as an important determinant of the export market choice between markets varying in cultural distance.

Though a culturally distant market could be associated with great uncertainties and costs, it represents great opportunities and could be a source of new and advanced technology and knowledge (He and Wei, 2011). The differences between a firm’s home country and the export target market provide a strong basis for differentiation which can be a source of competitive advantage for the exporting firm (Evans and Mavondo, 2002). The integration of newly acquired knowledge and skills with a firm’s existing resources can lead to unique resource and capability combinations (Evans and Mavondo, 2002). Stottinger and Schlegelmilch (1998) find that, in some cases, export sales to distant markets are greater than to close countries.
Fixed costs associated with exporting to culturally distant markets tend to be higher than those to culturally close markets. This is because firms usually have limited understanding of institutions, norms, customer preferences in the culturally-distant markets than in the culturally close market, as a result, have to incur higher costs to deal with the complexity and the specificity associated with the culturally distant market (Tihanyi et al., 2005). Repeated dyadic market transactions lower transaction costs. Fixed costs occurring in culturally distant markets can only be justified when the transaction volume is large enough to cover the fixed costs (Brouthers and Hennart, 2007), i.e. when the export transactions are recurrent and/or large enough. Therefore, we argue that:

**H4: The higher the level of transaction frequency, the more likely it is for exporting firms to target a culturally distant market.**

**Export Performance**

The majority of past studies of IMS tend to be descriptive in nature (Brouthers et al., 2009), examining how well a firm’s IMS can be predicted using a set of independent variables (usually target country level variables) without exploring performance implications. As Brouthers and his colleagues (Brouthers et al., 2003, Brouthers et al., 2009) have maintained, in order for international business theory to be helpful to practitioners it needs to move beyond mere description to provide performance implications. In response to this call, we propose that considering TCA factors in IMS results in superior performance because selecting markets where transaction costs are low enhances firm performance (Brouthers et al., 2003).
Transaction costs influence the efficiency of a firm’s operations (Dunning and Lundan, 2008; Leiblein, 2003; Williamson and Ghani, 2012). “[A] firm is an efficiency-inducing administrative instrument that facilitates exchange between economic actors” (Leiblein, 2003, p.939). Firms make discriminating alignment by matching transaction cost factors with export target markets of varying degree of cultural distance.

As argued above, different markets are associated with different levels of transaction costs for firms of varying degree of asset specificity, external uncertainty, behavioral uncertainty and transaction frequency. Firms with high asset specificity, external uncertainty and behavioral uncertainty face lower transaction costs in export markets that are culturally close to home than those that are culturally distant to home. Firms with high frequency (export volumes) may be able to take advantage of market opportunities in culturally distant markets because costs can be spread over a large volume of transactions (Klein et al., 1990). In matching transaction cost factors with IMS, firms attempt to minimize costs and improve efficiency, and as a result to enhance performance. Put differently, managing IMS decisions according to TCA predictions helps firms enjoy superior performance. In line with the strategic fit-performance paradigm (Brouthers et al., 2003; Brouthers et al., 2009; Castañer et al., 2013; Katsikeas et al., 2006; Zajac et al., 2000), we posit:

**H5: An exporting firm whose target market selection can be predicted by TCA performs better than one whose target market selection cannot be predicted by TCA.**

**Methods**
Research Setting and Data Collection

Since China’s accession to the World Trade Organization in 2001, Chinese manufacturers have gradually moved from the initial stage of ‘passive exporting’, relying on the request from foreign buyers who are sourcing products for cost cutting purpose, to the current stage of active exporting, making efforts to search for buyers in foreign markets. This development is particularly well suited for the present research, and the lessons learned in China may be applicable to exporters located in other transition economies (He et al., 2013). The importance of a study set in this context is also reflected from the recent surge of research interests in the exporting manufacturers based in China (e.g., Brock et al., 2011; Cadogan et al., 2006; Gao et al., 2010; He et al., 2013).

We conducted a mail survey with exporting manufacturers in Fujian Province of China, one of the most important export bases for the country’s international trade. An initial telephone contact was made with senior executives in 600 firms, randomly selected from the Exporting Firms Directory of Fujian Province (N=7,300). A three-page questionnaire was then posted to those firms that agreed to participate in the survey, which generated an effective response rate of 38.3%. The respondent firms exported to 26 destination countries in total, including Australia, Canada, Denmark, Egypt, France, Germany, Hong Kong, India, Indonesia, Iran, Italy, Japan, Malaysia, Netherlands, Panama, Russia, Saudi Arabia, Singapore, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, the UK and US. There are firms who exported to multiple markets, in which case, we ask for information about the impost important
export market. In our dataset, these markets account for 58% of sample firms’ total exports.

In the survey process, informants were asked to identify their most important export market and relevant aspects of transaction costs in relation to exporting into that market. Given the reliability and validity issue associated with eliciting accounts of the past, we followed advices from Miller et al. (1997) by taking three steps to minimise the potential of retrospective bias. First, we ensured that informants were someone very familiar with the focal exporting operations, therefore, be able to provide high quality information. Second, we did not explicitly ask informants’ retrospective reports of information upon pre-entry. Third, we motivated our informants to respond and to offer accurate information by ensuring confidentiality and providing them information about the potential usefulness of our research to the organisation. We offered to send them research results, at the same time, informed them that data would be kept confidential and subject to aggregate statistical treatment without references to individual cases.

Measures

The measures used in the survey are adopted or adapted from established studies. IMS, an exporting firm’s selection of its most important export market along with its

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4 This method is also seen in export channel selection research, e.g. He et al. (2013), Klein et al. (1990) and Klein and Roth (1993). Because the channel selection usually co-occurs with market selection (Klein et al., 1990), we follow the same practice. Using the most recent market entry can be an alternative measure for IMS. However, as argued in the Introduction, the initial entry of exporting can be a one-off activity involving rather small amount of sales (Brouthers and Hennart, 2007) which is not a strategic and conscientious decision of the firm. Given the focus of the present study is to treat IMS as a rational and strategic decision, using the most important market is more appropriate.
cultural distance from China, is the dependent variable for testing H1-H4. We coded IMS as an ordinal variable, ranked ordered according to cultural distance between the export destination and China. This is a necessary process in order to employ the logistic model. Using the logistic model is not only able to provide information similar to that by a conventional regression [Hair et al., 2010], but also information about the predicted categories/selections by the theorized model, which was used to develop a new variable, TCA predicted fit, to test H5. Cultural distance was measured with Hofstede’s [Hofstede and Hofstede, 2005] four constructs and Morosini et al. (1998)’s approach which adjusts for the lack of variance in the Chinese measure. We used the latest data from Hofstede’s website\(^5\).

The other dependent variable is Export performance. There is no agreement on the best way to measure this variable [Sousa and Bradley, 2006]. Further, there are concerns among Chinese managers about the leakage of business secrets and they are unwilling to offer objective information [Brouthers and Xu, 2002]. Thus, following previous export studies [Katsikeas et al., 2000; Rose and Shoham, 2002; Sousa and Bradley, 2006], we employed subjective indicators by asking respondents to indicate (on a 7-point Likert scale) the level of satisfaction with the following items in their most important export market over the past 3 years: (1) overall export performance, (2) export sales growth, (3) export profitability, and (4) the achievement of the firm’s initial strategic objectives (see Appendix A).

We considered various constructs for transaction cost factors (asset specificity,
uncertainty and frequency) employed in prior research. There are a number of measures of Asset specificity (David and Han, 2004). In the exporting setting, Anderson’s (1985, 1988) measure or its variations have been frequently used (Geyskens et al., 2006). Following Shervani et al. (2007), we adapted a four-item measure of Asset specificity that captures the extent to which specialized knowledge was required by export salespeople on the firm’s products and procedures (see Appendix A).

External uncertainty was measured with a four-item semantic differential scale (see Appendix A), again adapted from Shervani et al. (2007). Behavioral uncertainty was measured with a construct borrowed from Poppo and Zenger (2002). We asked respondents to indicate on a 7-point Likert scale the ease of evaluating the performance of those individuals who undertake the exporting function. Drawing on Klein et al. (1990)’s seminal work on TCA in exporting strategy, Transaction frequency was measured by the value of the firm’s exports to the most important market.

A number of control variables that may influence IMS and performance were included in their respective model estimations. We gauged Size by the number of employees in the firm, in line with Wu et al. (2007). Export experience was the overall export experience, measured as the number of years in exporting, a measure often employed in the literature (Wu et al., 2007, Zhao et al., 2004, Brouthers and Hennart, 2007). Internationalization level was captured as the number of markets to which the firm exports, following Morgan et al. (2004). Age was measured as the
number of years of the export venture (He et al., 2013). Expert experience prior to market entry was the number of years in exporting prior to the entry of the most important market, which equates Export experience minus Age.

Three ownership dummy variables for state owned enterprises (SOEs), foreign firms and private firms were created to control for the Ownership differences from other types of firms of the sample firms. Each dummy variable takes the value of one (1) if the firm’s ownership matches the variable, and takes the value of zero (0) if they have another ownership structure.

Further, with four dummy variables, we controlled for Industry differences from other industries for firms in domestic articles industry, electrical and electronic industry, clothing industry or food industry. The industry classification is based on Standard Industrial Classification (SIC) of Chinese Export Commodities [MOFCOM, 2008]. For each of these industry dummy variables, a value of one (1) means the firm is in the industry, while a value of zero (0) indicates the firm is not in the specified industry. Appendix B provides a summary of single-item measures.

**Common Methods Variance (CMV)**

Cross-sectional surveys are prone to common method bias [Podsakoff et al., 2003], yet careful survey design could reduce the bias, and provide validity that can be comparable to the results obtained from other research such as longitudinal studies [Rindfleisch et al., 2008].

We followed Podsakoff et al. (2003)’s procedure in designing our questionnaire,
such as the guarantee of anonymity to solicit honest response, the separation of
different variable’s measurement (both psychologically and proximally), the
counterbalancing of question order, and careful wording of questions.

We conducted three tests to ascertain whether CMV exists. We first used
Harman’s one-factor test to assess to what extent a single latent factor would account
for the manifest variables [Podsakoff and Organ, 1986]. The result shows an eight-
factor solution in which the largest factor explains only 15% of the variance. We
further conducted a confirmation factor analysis (CFA) to test a single-factor model
[Morgan et al., 2004], with results with the following statistics: TLI = 0.420; CFI =
0.492; IFI = 0.498; RMSEA = 0.167, showing a poor model fit. Third, we employed
the marker variable (MV) method [Lindell and Whitney, 2001]. We selected a MV to
proxy CMV. We added an item pertaining to information transfer within the firm as
the MV, which had little theoretical link to at least one of our variables. We selected
the lowest positive correlation (r = 0.05) between the MV and other variables to adjust
the variable correlations and statistical significance. The partial correlation results
after controlling for the effect of MV show no significant change among constructs.
CMV is further confirmed not to be of concern in this research.

Construct Validity

We established the construct validity of instruments from the development stage
by excluding variables and items regarded as irrelevant [Cavusgil and Zou, 1994].
Following Anderson and Gerbing [1988], we developed a three-factor CFA model to
assess construct validity. Appendix A shows the results of the validity analysis. Each
indicator’s standardized factor loading (SFL) on its respective construct was statistically significant and sufficiently larger than the usual benchmark of 0.50.

Composite reliabilities (CR) figures are greater than the commonly used 0.70 cutoff. Average variance extracted (AVE) indices for Asset specificity and Export performance are greater than the 0.50 cutoff, but not that for External uncertainty. Overall, these results support the dimensionality of constructs, indicating adequate construct validity and reliability, albeit in the case of External uncertainty, out of all the criteria, one is not met, i.e. AVE is 0.477, slightly less than the 0.50 cutoff.

Nonetheless, we decided not to exclude External uncertainty from our model estimations for two reasons. First, this variable is a well-established transaction cost factor in the TCA literature. Its inclusion has sound theoretical value. Second, this well developed and widely used construct has sufficient content/face validity, and empirically it has been widely used in the literature (Klein et al., 1990; Rindfleisch and Heide, 1997; Williamson, 1985).

We employed two methods to assess discriminant validity. First, we carried out pair-wise tests for all the scales to examine the chi-square difference and to determine whether the freely estimated model (in which the correlation was estimated without restriction) fitted the data significantly better than the restricted model (in which the correlation was fixed at 1.0). All chi-square differences are highly significant, providing evidence of discriminant validity (Anderson and Gerbing, 1988). Second, we calculated shared variance between all possible pairs of constructs to check if they were lower than the AVE for the individual constructs. We found that for each
construct the AVE was much higher than its highest shared variance with other constructs (HSV), providing additional support to discriminant validity (Fornell and Larcker, 1981).

Finally, the goodness-of-fit indices are shown in Appendix A. The model meets the criteria of good fit. The $\chi^2$ value is statistically significant. However, “[T]he $\chi^2$ value for a model does not summarize the fit of a model quite well” (Hair et al., 2010, p. 667). Marsh et al. (1988) also note that this statistic is sensitive to large sample size. In the case of large sample size (greater than 200 as in the present study), statistically significant $\chi^2$s are often obtained, therefore other measures have been recommended for assessing model fit. As shown in Appendix A, the values of IFI, TLI and CFI are greater than the usual benchmark of 0.90 and that of RMSEA less than 0.08, indicating an acceptable model fit.

**Results**

Table 1 reports the descriptive statistics and correlation matrix. Overall the correlation coefficients between variables are low, indicating no serious potential multicollinearity problems. In addition, no variance inflation factor (VIF) score is low, again suggesting that multicollinearity is of little concern.

(Insert Table 1 here)

We employ ordinal logistic regression analysis to test H1-H4 because the dependent variable, IMS, is operationalized as an ordinal variable, explained in previous section. Six logistic regression models are presented in Table 2. A base
model was developed to ensure that the added contribution of TCA factors could be assessed. TCA factors (Asset specificity, External uncertainty, Behavioral uncertainty and Transaction frequency) were added separately into each TCA Factor Model. Finally a composite TCA model including all TCA factors is presented in the last column.

(Insert Table 2 here)

As Table 2 indicates, the base model explains 13.5% of the variance in IMS. The percentage of correct classification by it is 46.0%. Electrical and electronic sector is significantly related to the selection of culturally close markets. All TCA factor models except the Asset Specificity Model indicate a higher level of explanatory power with significant increases in Nagelkerke $R^2$ over the base model.

The Asset Specificity Model explains only 14.8% of the variance in IMS. The maximum likelihood of classifying the export target market correctly is 47.2%. Adding Asset specificity variable did not increase much explained variance in IMS over the baseline model. Thus H1 is not supported.

The External Uncertainty Model explains 23.8% of the variance in IMS. The correct classification of IMS is 61.4%. Adding the External uncertainty variable increases 10.3% of the explained variance in IMS over the base model. External uncertainty is statistically significantly linked to targeting culturally close markets, providing support to H2.

The Behavioral Uncertainty Model explains 28.3% of the variance in IMS. The maximum likelihood of classifying IMS correctly is 64.8%. Adding the Behavioral
uncertainty variable increases 14.8% of the explained variance in IMS over the base model. Behavioral uncertainty is significantly related to choosing culturally close and culturally distant markets respectively, in support of H3.

In the Transaction Frequency Model, the regression explains 25.7% of the variance in IMS. The maximum likelihood of classifying the IMS correctly is 63.4%. Adding Transaction frequency increases 12.2% of explained variance in IMS over the base model. Transaction frequency is significantly connected with choosing culturally distant markets over culturally close markets as predicted by H4.

Finally, the composite TCA Model including all transaction cost variables substantially increases the variance explaining power as shown in the improvement of Nagelkerke $R^2$. External uncertainty, Behavioral uncertainty and Transaction frequency are all statistically significantly related to IMS, providing further support to H2-H4.

To test the performance implications of aligning IMS with transaction cost factors (H5), we adopted a Heckman two-stage regression analysis [Heckman, 1979]. This method is helpful to address the issue of self-selection in performance research [Hult et al., 2008]. As noted by Shaver [1998], the self-selection issue arises in performance research because strategic choice (such as IMS) is endogenous and self-selected based on a firm’s own attributes and industry conditions. Ignoring this can lead to misleading and biased results. To address this, Shaver [1998] and Brouthers et al. (2003, 2008) recommend adding a self-selection correction variable, also known as the ‘inverse Mills ratio’ calculated from the strategic choice equations, to control for
the possibility that unobserved firm characteristics may impact on both strategic choice variable and performance variable.

(Insert Table 3 here)

Table 3 shows the results of our multiple regression analysis in two models. The base model contains control variables only and a self-selection correction term. The TCA model contains the same variables as the base model and a Predicted fit variable. This Predicted fit variable takes the value of 1 if the logit regression analysis (the composite TCA Model in Table 2) correctly predicts the export market selected by the firm and 0 otherwise. The Predicted fit variable was statistically significantly related to export performance and adding this variable increases the R-square from 0.123 to 0.160. These results indicate that H5 is supported, i.e. firms that target the export markets that fit with transaction cost factors on average performance better than those targeting export markets that do not align with the transaction cost factors.

**Discussions and Conclusion**

In this paper, we extend transaction cost analysis to IMS research. We develop an analytical framework linking transaction cost factors to IMS decision and further examining the effects of the fit of transaction cost factors and IMS on export performance. Three dimensions of TCA are hypothesized to influence IMS. Firms are more likely to target culturally close markets, when they have higher level of asset specificity, encounter higher external uncertainty and behavioral uncertainty, or experience lower transaction frequency. The practical implication of our model is that
by applying TCA in IMS, firm performance should be improved if they target an export market on the conditions of transaction costs they face (Brouthers et al., 2003; Brouthers et al., 2009).

The empirical results of our study provide broad support to our hypotheses and confirm that TCA is able to explain IMS, and that firms using TCA-based target market selection perform significantly better than those choosing other markets. These findings suggest that the systematic market selection approach could supplement the unsystematic approach in determining IMS and influencing export performance. One surprising finding is that culturally close markets are not chosen in response to high level of asset specificity (measured as the extent to which specialized knowledge was required by export salespeople on the firm’s products and procedures). It could be the effects of our choice of measure, which was adopted from entry mode literature. Given the specific context of exporting, we may need to develop new measures.

**Research Implications**

Researchers can benefit from this study. First, we extend TCA in the prediction of IMS to an exporting context. Our paper adds value to IMS research by explicitly investigating the effects of transaction cost factors on IMS and theoretically and empirically identifies how firms make IMS decisions based on TCA predictions can create more successful export operations.

Second, we extend the literature regarding the relationship between IMS and export performance, bridging a considerable gap between normative propositions and practice (Brewer, 2001). Past research has provided little empirical evidence to
confirm the normative propositions (Brouthers et al., 2009; Brouthers and Nakos, 2005). We build normative propositions on such a notion that exporting into markets where transaction costs are low enhances export performance (Brouthers et al., 2003).

Our study finds that two dimensions of transactions, i.e. uncertainty and frequency, influence IMS and hence each needs to be aligned with the target market selected.

Third, our study reveals the association of markets with different cultural distances and different levels of transaction costs, leading to disparate performance outcome. Our research links a systematic approach (TCA) with an unsystematic one (cultural distance) in clarifying the puzzling mechanism between cultural distance and IMS (Tihanyi et al., 2005), thus, enhances the role of cultural distance in internationalization (Brock et al., 2011).

Managerial Implications

Our findings provide important implications for export managers in selecting foreign markets to target. Our study suggests that the selection of target market based purely on cultural distance may not generate desirable outcomes, while adding the consideration of transaction costs significantly helps managers make better informed decisions that can lead to superior export performance.

Exporting manufacturers can be better off if they integrate systematic approach with unsystematic approach in their global expansion decisions. Systematic models offering normative guidance that promise superior performance (Brouthers and Nakos, 2005) may face various barriers in practice. Unsystematic approaches, on the other hand, though intuitively appealing and practical, may result in less than optimal
performance. The integration of the two approaches is sound in theory and easy to implement in practice. For example, when deciding which markets to target, managers could start with the incremental approach based on the firm’s cultural background and internationalization experience (Andersen and Buvik, 2002), and then move to a more systematic approach by considering the risks and cost reduction factors (asset specificity, uncertainty and transaction frequency), as well as the opportunities and value-added factors (such as target market size and potential) associated with the target market.

**Limitations and Further Research**

This study has several limitations which provide fruitful avenues for future research. First, this research only focuses on the cultural differences between the exporting country and the target country. Peng et al. (2008) note that culture, as a part of informal institutions, underpins formal institutions. Institutional forces create risks for internationalizing firms, and need to be fully considered in making choices about trade and cost effective hazard mitigation. Cultural distance only represents part of the differences in institutions between two nations. Further efforts could be made to address the challenges and costs raised by institutional distance (Delios and Henisz, 2003a; Delios and Henisz, 2003b) beyond cultural distance highlighted in the current research.

Second, we employed Hofstede’s (Hofstede and Hofstede, 2005) dimensions for cultural distance measure. Although it is one of the most widely cited measures, it may not fully capture the entire construct of culture (Dow, 2000). For example, it does
not deal with differences in language, religion, education, political and legal system, or the level of industrial development (Dow, 2000). We encourage further studies to establish additional scales to capture the factors contributing to this construct.

Third, this research does not consider the export initiated by overseas buyers, i.e. ‘passive exporting’ (Gripsrud, 1990). Although a growing number of manufacturing firms have been actively accumulating experience and strategically selecting their export target markets, there are still many manufacturers whose exporting is a reaction to the solicitation from international companies which sometimes are one-off activities and have little print on firm’s strategic decisions. In this case, TCA factors may become less influential in their target market selection. Furthermore, following prior exporting research (e.g., He et al., 2013; Klein et al., 1990; Klein and Roth, 1993; Sousa and Bradley, 2009), we focus on a firm’s most important export market. This is to focus on IMS as a strategic decision not one-off activity involving rather small amount of sales.

Fourth, despite our best efforts, retrospective bias is unlikely to be fully discounted. For example, there may be an issue of how much the most important market captures the aspect of market entry, or rather market penetration, as over time because of TCA factors the market might become more important to the firm. Our findings therefore need to be interpreted with caution\(^6\).

Fifth, from the resource-based view (RBV), firms can take advantage of resources/capabilities and/or use strategies to offset/reduce transaction costs. Future

\(^6\) We thank a reviewer for pointing out this potential limitation.
research may extend our study by incorporating RBV considerations to generate more insights.

In conclusion, our study makes important contributions to the literature by examining the effects of transaction cost factors on strategic decisions of international market selection. Our study provides initial empirical support for the notion that encountering higher level of external uncertainty and behavioral uncertainty and experiencing higher transaction frequency encourage firms to target culturally more close markets. Our research also provides practical implications by bridging the gap of systematic and unsystematic approaches to international market selection decision.

7 We thank a reviewer for pointing out this potential limitation.
Appendix A: Multi-item Measures and Validity Assessment

<table>
<thead>
<tr>
<th>Item</th>
<th>SFL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Asset Specificity:</strong> CR=0.837, AVE=0.565, HSV=0.242</td>
<td></td>
</tr>
<tr>
<td>To be effective, a salesperson has to make a lot of efforts to get to know the customers.</td>
<td>0.743</td>
</tr>
<tr>
<td>A salesperson needs to make a lot of efforts to learn about our products thoroughly.</td>
<td>0.655</td>
</tr>
<tr>
<td>To be effective, a salesperson has to make a lot of efforts to get to know our competitors and their products.</td>
<td>0.862</td>
</tr>
<tr>
<td>A specialized sales effort is needed to market a product line.</td>
<td>0.731</td>
</tr>
<tr>
<td><strong>External Uncertainty:</strong> CR=0.775, AVE=0.477, HSV=0.048</td>
<td></td>
</tr>
<tr>
<td>The extent to which it is easy to monitor trends</td>
<td>0.719</td>
</tr>
<tr>
<td>The extent to which it is easy to forecast sales</td>
<td>0.797</td>
</tr>
<tr>
<td>The extent to which it is easy to gauge competition</td>
<td>0.564</td>
</tr>
<tr>
<td>The degree of familiarity with the market</td>
<td>0.663</td>
</tr>
<tr>
<td><strong>Export Performance:</strong> CR=0.905, AVE=0.712, HSV=0.088</td>
<td></td>
</tr>
<tr>
<td>Our most important market has been profitable during the past three years.</td>
<td>0.710</td>
</tr>
<tr>
<td>Our most important market has achieved rapid sales growth during the past three years.</td>
<td>0.839</td>
</tr>
<tr>
<td>Our most important market has satisfactory export performance during the past three years.</td>
<td>0.918</td>
</tr>
<tr>
<td>Our most important market has achieved our company’s initial strategic objectives during the past three years.</td>
<td>0.892</td>
</tr>
<tr>
<td>Goodness-of-fit: $\chi^2(51)=106.211$, p&lt;0.000; IFI=0.961; TLI=0.949; CFI=0.960; RMSEA=0.069.</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Sample size = 230; SFL=standardized factor loading; CR=composite reliability; AVE=average variance extracted; HSV=highest shared variance with other constructs. All statement-style items are measured on a 7-point Likert scale (1=highly disagree to 7=high agree or 1=very little to 7=very extensive).

Appendix B: Single-item Measures

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMS</td>
<td>The cultural distance between the exporter’s most important export target market and China (home country)</td>
</tr>
<tr>
<td>Behavioral uncertainty</td>
<td>The ease of evaluating the performance of individuals who undertake the exporting function</td>
</tr>
<tr>
<td>Transaction frequency</td>
<td>The value of the firm’s exports to the most important market</td>
</tr>
<tr>
<td>Variable</td>
<td>Description</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Size</td>
<td>The number of employees in the firm</td>
</tr>
<tr>
<td>Export experience</td>
<td>The number of years in exporting</td>
</tr>
<tr>
<td>Export experience prior to</td>
<td>The number of years in exporting prior to entering the most important market</td>
</tr>
<tr>
<td>market entry</td>
<td></td>
</tr>
<tr>
<td>Internationalization level</td>
<td>The number of markets to which the firm exports</td>
</tr>
<tr>
<td>Age</td>
<td>The number of years of the export venture</td>
</tr>
<tr>
<td>Ownership</td>
<td>Dummy variables capturing whether the firm is state-owned enterprise (SOE), foreign firm, private firm or firm with other types of ownership structure</td>
</tr>
<tr>
<td>Industry</td>
<td>Dummy variables categorizing whether the firm belongs to domestic articles industry, the electrical &amp; electronic industry, clothing industry, food industry or other industry</td>
</tr>
</tbody>
</table>
References:


Poppo, L. & Zenger, T. (2002), "Do formal contracts and relational governance function as substitutes
or complements?", Strategic Management Journal, 23, 707 - 725.
Figure 1: The Conceptual Model

- **TCA factors**
  - Asset specificity
  - External uncertainty
  - Behavioral uncertainty
  - Frequency

- **International market selection**

- **Export performance**

- **Control variables**
  - Size
  - Internationalization level
  - Export experience prior to market entry
  - Ownership
  - Industry

H1-4

H5
Table 1: Descriptive Statistics and Correlations

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>s. d.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Size</td>
<td>1194.80</td>
<td>2633.837</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Export experience prior to market entry</td>
<td>1.29</td>
<td>2.70</td>
<td>0.068</td>
<td>0.449**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Internationalization level</td>
<td>12.26</td>
<td>14.549</td>
<td>0.309**</td>
<td>0.373**</td>
<td>0.059</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Age</td>
<td>8.37</td>
<td>5.94</td>
<td>0.275**</td>
<td>0.914**</td>
<td>0.047</td>
<td>0.390**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Asset specificity</td>
<td>4.798</td>
<td>0.372</td>
<td>-0.009</td>
<td>0.167*</td>
<td>0.162*</td>
<td>0.072</td>
<td>0.113</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. External uncertainty</td>
<td>3.651</td>
<td>1.128</td>
<td>-0.024</td>
<td>0.038</td>
<td>0.019</td>
<td>-0.063</td>
<td>0.034</td>
<td>0.180**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Behavioral uncertainty</td>
<td>3.42</td>
<td>1.371</td>
<td>-0.184**</td>
<td>-0.002</td>
<td>0.078</td>
<td>-0.108</td>
<td>-0.038</td>
<td>0.254**</td>
<td>0.108</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Transaction frequency</td>
<td>0.476</td>
<td>0.271</td>
<td>-0.114</td>
<td>0.079</td>
<td>-0.119</td>
<td>-0.215**</td>
<td>0.143*</td>
<td>0.064</td>
<td>0.181**</td>
<td>0.048</td>
<td></td>
</tr>
<tr>
<td>10. Export performance</td>
<td>4.226</td>
<td>1.478</td>
<td>0.004</td>
<td>-0.091</td>
<td>-0.026</td>
<td>0.026</td>
<td>-0.089</td>
<td>0.072</td>
<td>-0.109*</td>
<td>-0.054</td>
<td>0.010</td>
</tr>
</tbody>
</table>

N=230; * p<0.05; ** p<0.01 (two-tailed test).
Table 2: Ordinal Logistic Regressions for International Market Selection

<table>
<thead>
<tr>
<th>Transaction costs variables:</th>
<th>Base Model</th>
<th>Asset Specificity Model (H1)</th>
<th>External Uncertainty Model (H2)</th>
<th>Behavioral Uncertainty Model (H3)</th>
<th>Transaction Frequency Model (H4)</th>
<th>TCA Model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asset specificity</td>
<td>-0.042</td>
<td>-0.042 (0.92)</td>
<td>-1.121*** (0.155)</td>
<td>-1.146*** (0.137)</td>
<td>1.223*** (.554)</td>
<td>-0.100</td>
</tr>
<tr>
<td>External uncertainty</td>
<td>-1.121***</td>
<td>-1.121*** (0.155)</td>
<td>-1.135*** (.116)</td>
<td>-1.140*** (.085)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Behavioral uncertainty</td>
<td>-1.146***</td>
<td>-1.146*** (0.137)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transaction frequency</td>
<td>1.223***</td>
<td>1.223*** (.554)</td>
<td></td>
<td></td>
<td></td>
<td>1.178***</td>
</tr>
<tr>
<td>Size</td>
<td>0.000**</td>
<td>0.000** (.000)</td>
<td>0.000** (.000)</td>
<td>0.000** (.000)</td>
<td>0.000** (.000)</td>
<td></td>
</tr>
<tr>
<td>Internationalization level</td>
<td>0.004</td>
<td>0.004 (.008)</td>
<td>0.005 (.009)</td>
<td>0.006 (.011)</td>
<td>0.005 (.021)</td>
<td></td>
</tr>
<tr>
<td>Export experience prior to</td>
<td>0.128**</td>
<td>0.128** (.024)</td>
<td>0.122** (.032)</td>
<td>0.120** (.043)</td>
<td>0.135** (.044)</td>
<td>0.120**</td>
</tr>
<tr>
<td>market entry</td>
<td>0.126**</td>
<td>0.126** (.032)</td>
<td>0.122** (.043)</td>
<td>0.120** (.044)</td>
<td>0.135** (.044)</td>
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<tr>
<td>Ownership:</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SOEs</td>
<td>-0.072</td>
<td>-0.070 (.654)</td>
<td>-0.098 (.728)</td>
<td>-0.098 (.811)</td>
<td>-0.107 (.827)</td>
<td>-0.194</td>
</tr>
<tr>
<td>Private firms</td>
<td>-0.285</td>
<td>-0.278 (.468)</td>
<td>-0.263 (.456)</td>
<td>-0.263 (.455)</td>
<td>-0.284 (.487)</td>
<td>-0.303</td>
</tr>
<tr>
<td>Foreign firms</td>
<td>-0.327</td>
<td>-0.334 (.411)</td>
<td>-0.399 (.402)</td>
<td>-0.399 (.436)</td>
<td>-0.423 (.463)</td>
<td>-0.449</td>
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<tr>
<td>Industry</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domestic articles</td>
<td>-0.173</td>
<td>-0.162 (.352)</td>
<td>-0.146 (.459)</td>
<td>-0.146 (.444)</td>
<td>-0.160 (.455)</td>
<td>-0.153</td>
</tr>
<tr>
<td>Electrical &amp; electronic</td>
<td>-1.577**</td>
<td>-1.546** (.734)</td>
<td>-1.423** (.622)</td>
<td>-1.423** (.547)</td>
<td>-1.598** (.564)</td>
<td>-1.561**</td>
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<tr>
<td>Clothing</td>
<td>-0.030</td>
<td>-0.027 (.415)</td>
<td>-0.022 (.420)</td>
<td>-0.022 (.458)</td>
<td>-0.026 (.458)</td>
<td>-0.012</td>
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<tr>
<td>Food</td>
<td>0.198</td>
<td>0.190 (.503)</td>
<td>0.211 (.523)</td>
<td>0.211 (.439)</td>
<td>0.227 (.458)</td>
<td>0.201</td>
</tr>
<tr>
<td>Chi-square</td>
<td>26.534***</td>
<td>26.886*** 44.753***</td>
<td>66.381***</td>
<td>53.687*** 81.863***</td>
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</tr>
<tr>
<td>Chi-square</td>
<td>0.135</td>
<td>0.148 0.238</td>
<td>0.283 0.257</td>
<td>0.391</td>
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</tr>
<tr>
<td>Nagelkerke R²</td>
<td>0.013</td>
<td>0.103*** 0.148***</td>
<td>0.122***</td>
<td>0.256***</td>
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</tr>
<tr>
<td>Percent correctly classified</td>
<td>46.0%</td>
<td>47.2% 61.4%</td>
<td>64.8% 63.4%</td>
<td>69.6%</td>
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</tr>
</tbody>
</table>

N=230; Standard errors in parentheses; * p<0.10, **p<0.05, ***p<0.01, based on Wald test.
Table 3: Regression Model for Export Performance

<table>
<thead>
<tr>
<th></th>
<th>Base Model</th>
<th>TCA Model (H5)</th>
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<tbody>
<tr>
<td>Predicted fit</td>
<td>.147**</td>
<td>(2.071)</td>
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<tr>
<td>Self-selection correction</td>
<td>-.082</td>
<td>(-.374)</td>
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<tr>
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<td>-.094</td>
<td>(-.499)</td>
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<tr>
<td>Size</td>
<td>-.122</td>
<td>(-.903)</td>
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<td></td>
<td>-.110</td>
<td>(-.832)</td>
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<tr>
<td>Internationalization level</td>
<td>.062</td>
<td>(.717)</td>
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<td>.062</td>
<td>(.719)</td>
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<tr>
<td>Export experience</td>
<td>.032</td>
<td>(.194)</td>
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<tr>
<td></td>
<td>.025</td>
<td>(.151)</td>
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<td>Age</td>
<td>-.123</td>
<td>(-.741)</td>
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<td>-.115</td>
<td>(-.689)</td>
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<tr>
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<tr>
<td>SOEs</td>
<td>-.046</td>
<td>(-.598)</td>
</tr>
<tr>
<td></td>
<td>-.043</td>
<td>(-.600)</td>
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<tr>
<td>Private firms</td>
<td>.222*</td>
<td>(1.888)</td>
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<td></td>
<td>.223*</td>
<td>(1.872)</td>
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<tr>
<td>Foreign firms</td>
<td>.090</td>
<td>(.768)</td>
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<tr>
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<td>.083</td>
<td>(.755)</td>
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<td>Industry</td>
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<td>Domestic articles</td>
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<td>Electrical &amp; electronic</td>
<td>-.235**</td>
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<td>-.497***</td>
<td>(-4.457)</td>
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<tr>
<td>Food</td>
<td>-.381***</td>
<td>(-3.285)</td>
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<tr>
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<td>-.370***</td>
<td>(-3.278)</td>
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<td>F</td>
<td>2.264***</td>
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<tr>
<td>R²</td>
<td>0.123</td>
<td>0.160</td>
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<tr>
<td>R² increase from Base Model</td>
<td>0.037***</td>
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</tr>
</tbody>
</table>

N=230; t-value in parentheses; * p<0.10; ** p<0.05; *** p<0.01.